

CLAIMS

What is claimed is:

1. An apparatus for bringing baseplates of an artificial intervertebral disc substantially parallel to one another in an intervertebral space, the apparatus comprising:
 - at least one shaft having a distal end and a longitudinal axis; and
 - at least two tines extending parallel to one another from the shaft distal end in a same direction as that of the longitudinal axis;
 - wherein the disc comprises at least two baseplates coupled to one another by a central coupling between the baseplates, which coupling permits the baseplates to articulate relative to one another, including articulating such that the baseplates are substantially non-parallel to one another and including articulating such that the baseplates are substantially parallel to one another, the baseplates being separated from one another by a separation space volume when the baseplates are substantially parallel; and
 - wherein the tines are spaced and sized to be insertable and fittable between the baseplates and to substantially fill at least a height of the separation space volume at an area of the insertion when so fitted, and to straddle the central coupling during the insertion and when so fitted, such that when the baseplates are substantially non-parallel to one another in the intervertebral space, insertion of the tines into the intervertebral space between the baseplates and straddling the central coupling forces the baseplates into a substantially parallel orientation relative to one another.
2. An apparatus according to claim 1, wherein at least one of the baseplates has at least one spike, and wherein bringing the baseplates into a substantially parallel orientation relative to one another includes securing a purchase of at least one of the spikes to at least one vertebral bone.
3. An apparatus according to claim 1, further comprising a handle coupled to the shaft; wherein applying pressure to the handle in a distal direction aids insertion of the tines between the baseplates in the intervertebral space; and
 - wherein applying pressure to the handle in a proximal direction aids extraction of the

tines from between the baseplates out from the intervertebral space.

4. An apparatus according to claim 1, further comprising at least one vertebral body stop that prevents over-insertion of the tines into the intervertebral space.

5. An apparatus according to claim 1, wherein a distal end of at least one of the tines is tapered to ease insertion of the at least one of the tines between the baseplates.

6. An apparatus according to claim 1, wherein at least one contact surface of at least one of the tines contacts a corresponding surface of the disc during the insertion or fitting, which contact surface is shaped to conform to the corresponding surface of the disc.

7. An apparatus according to claim 6, wherein the corresponding surface of the disc has a curved contour and the contact surface has a contour substantially following the curved contour.

8. An apparatus according to claim 6, wherein an upper baseplate of the disc has a flat lower surface, a lower baseplate of the disc has a curved upper surface, and each of the tines has a flat upper contact surface and a curved lower contact surface, such that when the tines are fitted between the baseplates, the flat upper contact surfaces of the tines are flush against the flat lower surface of the upper baseplate of the disc, and the curved lower contact surfaces of the tines are flush against the curved upper surface of the lower baseplate of the disc.

9. An method of bringing baseplates of an artificial intervertebral disc substantially parallel to one another in an intervertebral space, the disc comprising at least two baseplates coupled to one another by a central coupling between the baseplates, which coupling permits the baseplates to articulate relative to one another, including articulating such that the baseplates are substantially non-parallel to one another and including articulating such that the baseplates are substantially parallel to one another, the baseplates being separated from one another by a separation space volume when the baseplates are substantially parallel, the method comprising:

inserting the artificial intervertebral disc into the intervertebral space with the baseplates

in a substantially non-parallel orientation with respect to one another, and
inserting an apparatus into the intervertebral space, the apparatus having distal tines
that are spaced and sized to be insertable and fittable between the baseplates and to
substantially fill at least a height of the separation space volume at an area of the insertion
when so fitted, and to straddle the central coupling during the insertion and when so fitted;
the insertion of the apparatus comprising inserting and fitting the tines between the
baseplates and straddling the central coupling.

10. The method according to claim 9, wherein at least one of the baseplates has at least one
spike, and wherein the insertion of the apparatus secures a purchase of at least one of the
spikes to at least one vertebral bone.

11. The method according to claim 9, wherein at least one contact surface of at least one of
the tines contacts a corresponding surface of the disc during the insertion or fitting, which
contact surface is shaped to conform to the corresponding surface of the disc, and the insertion
of the apparatus effects contact of the at least one contact surface and the corresponding
surface.

12. The method according to claim 9, wherein an upper baseplate of the disc has a flat
lower surface, a lower baseplate of the disc has a curved upper surface, and each of the tines
has a flat upper contact surface and a curved lower contact surface, and the insertion of the
apparatus effects contact of the flat upper contact surfaces of the tines against the flat lower
surface of the upper baseplate of the disc, and contact of the curved lower contact surfaces of
the tines against the curved upper surface of the lower baseplate of the disc.